

ABSTRACT

An image processing device emphasizes edges of an image without changing the image. A differential operation is performed on pixel values of a subject pixel and surrounding pixels to calculate a vector magnitude and a vector direction of a differential vector. Then, a new pixel value of the subject pixel is calculated based on the original pixel value of the subject pixel, a value determined dependently on the vector magnitude, and a pixel value of an adjustment pixel. The adjustment pixel is one of a first candidate surrounding pixel positioned in the vector direction and a second candidate surrounding pixel positioned in an opposite vector direction, and has a pixel value closer to the original pixel value of the subject pixel than the other candidate surrounding pixel.